THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 10

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte CHUNG-NIN CHAU, STEVEN C. FOWLER, JOHN S. TULK, PAUL W. SALVI, TRACY V. SILLOWAY and KAREN LEE

_____

Appeal No. 95-1473
Application No. 07/997,279[1]

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ON BRIEF

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Before KIMLIN, GARRIS and OWENS, Administrative Patent Judges.

GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the final rejection of claim 7. The only other claims remaining in the application, which are claims 1 through 5 and 8, have not been appealed.

The subject matter on appeal relates to an aqueous coating suspension for a fluorescent lamp comprising particles of an

[1] Application for patent filed December 23, 1992.

alkaline earth chlorofluorophosphate phosphor activated by antimony (and manganese) and from about 0.5 to about 3 percent by weight based upon the weight of the phosphor of ammonium chloride for suppressing halogen loss from said phosphor during lamp manufacture and improving lamp maintenance. Further details of this appealed subject matter are readily apparent from a review of non-appealed independent claim 1 and appealed claim 7 which depends therefrom, and a reproduction of these claims is set forth below:

1. An aqueous coating suspension for a fluorescent lamp comprising particles of an alkaline earth chlorofluorophosphate phosphor activated by antimony and manganese, water, at least one water soluble binder, and additional ingredients selected from an oxide adherence promoter, defoaming agent and a surface active agent depending on the desired characteristics of said aqueous suspension, and a sufficient amount of ammonium chloride for suppressing halogen loss from said phosphor during lamp manufacture and improving lamp maintenance.

7. An aqueous coating suspension according to claim 1 wherein said amount of ammonium chloride comprises from about 0.5 to about 3 percent by weight based upon the weight of said phosphor.

The following prior art is relied upon by the examiner as evidence of obviousness:

Vodoklys et al. (Vodoklys)	3,470,106	Sep. 30, 1969
Ropp	3,679,452	Jul. 25, 1972
Dutch application (Westinghouse)	7,506,340	Dec. 16, 1975

The prior art coating suspension described in the "Background Of The Invention" section of the appellants' specification (Admitted Prior Art).

Claim 7 stands rejected under 35 U.S.C. § 103 as being unpatentable over the Admitted Prior Art or Westinghouse in view of Ropp and Vodoklys.

We refer to the Brief and to the Answer (which incorporates the Office Action mailed July 27, 1993 as Paper No. 4) for a complete exposition of the opposing viewpoints expressed by the appellants and the examiner concerning the above noted rejection.

OPINION

For the reasons which follow, we cannot sustain the rejection advanced on this appeal.

We agree with the appellants that Ropp would not have suggested providing a phosphor suspension of the type here claimed and disclosed in the Admitted Prior Art and Westinghouse with ammonium chloride. This is because these types of phosphor suspensions are different from the phosphor suspensions taught by Ropp to be improved by addition of ammonium chloride thereto. In this regard, we reiterate the appellants' point concerning Ropp's disclosure at lines 38 through 56 in column 3 wherein the amount of ammonia compound used is based on the amount of stannous tin

activated phosphor only rather than this phosphor in combination with the manganese-activated halophosphate (which generally corresponds to the here claimed phosphors). This disclosure not only would have suggested that phosphor suspensions of the type here claimed and disclosed by the Admitted Prior Art and Westinghouse are different from those of Ropp but also that the beneficial results taught by Ropp to attend use of ammonia compounds with his phosphor suspensions would not be expected with respect to the suspensions under consideration.

With further regard to this matter, we are aware of the examiner's position that "this phosphor [i.e., the phosphor claimed by the appellants and disclosed by the Admitted Prior Art and Westinghouse] contains Sb and Mn activators that are susceptible to oxidation during lehring, which oxidation would be minimized by the addition of ammonium chloride" (Answer, page 3). However, we find no evidence of record and the examiner points to none which supports the proposition that "Sb and Mn activators ... are susceptible to oxidation during lehring, which oxidation would be minimized by the addition of ammonium chloride." In the absence of such evidence, the examiner's position cannot be accepted as well founded.

Similarly, we find no evidence and the examiner points to none specifically in support of his viewpoint expressed in the first paragraph on page 4 of the Answer that the phosphors under consideration "are known to be lehring sensitive and hence the use of ammonium compounds including ammonium chloride in coating compositions containing them to minimize adverse effects of lehring would have been suggested therefrom." Indeed, Ropp's disclosure in column 3 evinces the contrary as earlier explained. As a consequence, we do not share the examiner's aforequoted viewpoint.

As for Vodoklys, it is the examiner's opinion that "this reference teaches the reheating of Sb and Mn alkaline earth halophosphate phosphor with ammonium chloride at temperatures used to coat fluorescent lamps and hence it is considered to be an obvious expedient to include ammonium chloride in the coating composition since the reheating would be effected during lamp preparation" (Answer, pages 4-5). We cannot agree. The reheating step of Vodoklys' process (e.g., see lines 31 through 35 in column 2) includes temperatures that are generally higher and times that are significantly longer than those of the lehring step in a lamp preparation process (e.g., see the Westinghouse reference). For this reason, there would have been no reasonable

expectation that ammonium chloride would successfully achieve the results taught by Vodoklys in the relatively mild environment of a lehring step. In re O'Farrell, 853 F.2d 894, 904, 7 USPQ2d 1673, 1681 (Fed. Cir 1988) (for obviousness under § 103, a reasonable expectation of success is required).

In light of the foregoing, we cannot sustain the examiner's § 103 rejection of claim 7 as being unpatentable over the Admitted Prior Art or Westinghouse in view of Ropp and Vodoklys.

The decision of the examiner is reversed.

REVERSED

EDWARD C. KIMLIN Administrative Patent Judge	
BRADLEY R. GARRIS Administrative Patent Judge	BOARD OF PATENT APPEALS AND INTERFERENCES
TERRY J. OWENS Administrative Patent Judge	

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